CIDER PRESS

JANUARY, 1983

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GENERAL MEETING SCHEDULE, 1983

JANUARY	22	JULY	16
FEBRUARY	19	AUGUST	20
MARCH	19	SEPTEMBER	17
APRIL	16	OCTOBER	15
MAY	21	NOVEMBER	19
JUNE	18	DECEMBER	17

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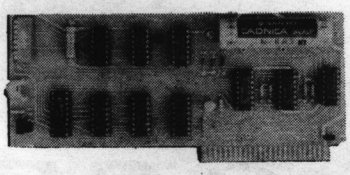

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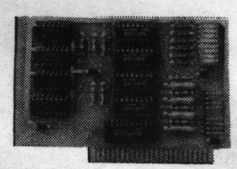

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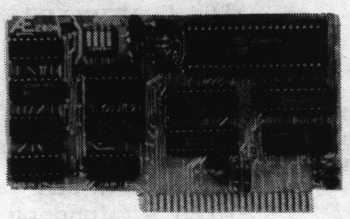

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Article Submission: The CIDER PRESS welcomes any and all articles dealing with Apple computers and their associated hardware and software. Articles may be submitted (typed or printed, double - space), or as disk text files using any of the popular word processors or text editors. Any author who has an article published in the CIDER PRESS will receive a free copy of the most current Disk - of - the - Month.

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DISK - of - the - MONTH

The San Francisco Apple Core publishes a disk of contributed BASIC and machine - language programs for the Apple I I every month. In addition, Pascal Disks are released periodically. We always welcome your contributions of public domain programs to these disks, which are amassed into the Club library. Any contributor of a program used on a Club Disk will receive the latest BASIC or Pascal disk, FREE. Why not submit one or more programs now? It/they can be utility, game, educational aid, business - related, graphics, or other program(s).

San Francisco Apple Core
1515 Sloat Blvd.
San Francisco, CA 94132

Interest Group Schedule for January, 1983

Monday	Tuesday	Wednesday	Thursday
3	4 FORTH Graphics	5	6 Green Apples 8:00 pm clubhouse
10	11 Visicalc 7:30 pm clubhouse Review 8:30 pm T.B.A.	12	13 Int. Basic
17	18 FORTH	19 Apple ///	20 Board of Directors 7:00 pm clubhouse
24 Assembly	25 Epson 7:30 pm clubhouse CP/M	26	27 Green Apples 8:00 pm clubhouse
31			

Interest Group Leaders

Apple ///	Don Norris	(415) 393-6290	day
Assembly	John Lynch	665-0136	
CP/M	Jim Ayers	383-0473	day
		383-5759	eve
Epson	Mike Fisher	557-1250	day
		933-4435	eve
FORTH	Bob Ackerman	626-6295	
East Bay BASIC	Molly Mitchell	526-9541	
Green Apples	Gary Owens	521-4002	
Intermediate	Gary Owens	521-4002	
Product Review	Woody Liswood	585-6375	
Visicalc	Don Scellato	271-8895	day
		672-2051	eve

Exec Apple

President's Message

Peter C. Weiglin

The results are in from our participation at the San Francisco Applefest; the crew's efforts brought more than two thousand dollars into our treasury. Treasurer Gary Knox has lost his worried look for a while, and the wolf has been driven another two feet back from the door.

We're now looking forward to both the second SFAC Swap Meet in February and the West Coast Computer Faire in March. Volunteers are needed: if you'd like to help out and have some fun in the process, call Ken Silverman about the Swap Meet at (408) 727-7652, and Don Scellato about the WCCF (415) 271-8895. Those are daytime numbers.

Our first Swap Meet was held in October, and people went away smiling! It's an opportunity to sell and/or buy things at generally astounding prices; I've called it the "Ceremonious Redistribution of Lotsa Stuff".

The West Coast Computer Faire is also coming; we've lost track of whether this is the Eighth Annual or Ninth Annual such festivity, but it is the show.

For some months, we have been concerned about increasing the level of Apple-related education which the SFAC could provide to members. I say education, as opposed to Interest Groups, because we're thinking of a more structured approach, along the lines of what Gary Owens has been doing with BASIC. Joyce Conklin, Steve Lloyd, Don Scellato and I will be working on this; your help and insights would be welcome.

Don Scellato has been named Club Librarian, and has been named to a seat on the SFAC Board of Directors. He will continue to be our Director of Marketing; no good deed goes unpunished.

A word of explanation: The SFAC Board is composed of up to nine members. Five of these are elected by the membership. The other seats are held by the Membership Chairman (Alan Smerican), the CIDER PRESS Editor (Gene Wilson), the Librarian (Don Scellato), and the Interest Group Co-ordinator. This last seat is vacant at the moment, because Steve Lloyd, who has been elected to the Board is serving that function. The Board then appoints the Club officers.

Nominations for the five elected seats for 1983-84 began at the December meeting. Incumbents Peter Weiglin (President), Ransom Fields (Vice-President), and Steve Lloyd (Interest Group Co-ordinator) were renominated, and Gary Knox (Treasurer) and Joyce Conklin (Meeting Coordinator and BASIC Editor for the CIDER PRESS) were nominated anew. Nonimations for those elected seats will close at the January meeting. The election will be by mail ballot, with the new Board assuming its seats at the March meeting. Chairman of this year's Election Committee is Rance Fields, who was last seen mumbling, "No good deed goes unpunished, eh?"

The CIDER PRESS' frequency will increase in 1983, according to Editor Gene Wilson (and nobody will argue with him about it). That means we still have a need for more material from you. Note that you need not be an expert to contribute; our best articles are those which resemble friends telling each other about the Apple and its related hardware and software. That's what the Club is all about, after all.

Tel. Nos - Steve Lloyd 571-7370

Don Scellato on Board 672-2051

DEMOS, DEMOS & MORE DEMOS
by
Rance Fields
Demo Coordinator

January 22, 1983 Meeting:

1. "Apple Surprise", a soon-to-be-announced hardware product from Apple Computer, Inc. Yes, you read that correctly - APPLE COMPUTER, INC. We also expect to have a spokesman from the same company to answer your questions, and to get YOUR feedback.

2. "Jack" - an integrated word processor, spreadsheet and file manager will be demoed by John Leininger, an Apple Core member.

3. "Illustrator" - a super graphics program will be demonstrated by Mike Fisher, another SFAC member.

4. "Glossaryone" - an Epson printer control program written by an Apple Core member, Mike Iverson, which allows easy set-up.

Other possible demos for the January meeting include: PFS-Graph, and the FROB.

February 19, 1983 meeting:

Ken Silverman is producing the 2nd San Francisco Apple Core SWAP MEET which is your meeting to redistribute all those goodies that could use better homes. You can also expect some good buys, and bid for others at the Auction. The 1st swap meet was an outstanding success. Thanks, Ken.

General

I am looking for an Assistant Demo Coordinator to help me. Call me at 415/863-1093 if you are interested. (Requirement: early riser on Third Saturdays. --Ed.)

If you know of interesting hardware, software, peripherals, etc., let me know at the same phone number or via the SFAC Club House.

'INIT' DIRECTORS & OFFICERS
by
Rance Fields
Chairman, Election Committee

At the December Board meeting, the subject of election of Board (bored) members for the 1983-84 term was brought up. Peter Weiglin, our esteemed President, looked at me (maybe I looked bored) and appointed me the Chairman of the Election Committee. So, here we go again.

At the December general meeting, five active volunteers were nominated; more nominations are expected at the January general meeting, when nominations close..

The ballots, qualification statements, and possibly, amendments to the Apple Core bylaws will be sent out around February 1, 1983. Your choices will need to be returned by March 10th.

The ballots will be tabulated at the Board meeting, and officers (who do not have to be on the Board) will be appointed on March 16th. The results will be announced at the general meeting on March 19th, and the new Directors and Officers will take over on April 1st!

Watch your mailbox and VOTE!

P.S. We need volunteers to help in various aspects of the election process. Call me at 415/863-1093.

Editor Speaks Out

Well, it's time to try a 'monthly' format. The information that seems to be most important is "exactly what day does everything come together", or more precisely, "When is the monthly general meeting?"

The 'tentative' list of meeting dates for this year is posted on the front cover. These dates can change as the Fort Mason Foundation has final say over the matter, and they won't give us firm dates for the year! We'll keep you informed as conditions change.

Another item of great interest is the monthly schedule of 'Interest Group Meetings'. Steve Lloyd has been providing a monthly schedule and a 'play by play of what's happening, and where. He didn't provide a February schedule by press time, so it will be up to you to call the interest group leader and confirm date, time and meeting place. We'll try to have this item covered again in future issues.

Reviews are predicated upon receipt of programs, books, computer related materials, etc. that are of use/interest to computer hackers/hobbiests/users. There has been a slowdown of incoming material. We hope it's just the holiday season that is at fault, but we'll see if a trend towards tightening the belt continues with local suppliers. (At the same time, articles dropped off dramatically and several of our 'regulars' were not easily found. From an editor's standpoint that made things tough, but my family also got time that normally is spent in front of a CRT screen. But now that the holidays are over.....).

Lot's of interest has been expressed towards giving Joyce Conklin more space for the "B*A*S*I*C section. Seem that threre are many 'novice' computer 'users' out there that really appreciate getting information that they can play with and learn from (in the privacy of their own homes without anyone watching and offering help). Well, Joyce will show you how to PEEK and POKE this month, and next issue she'll CALL in some items of interest to all.

Derek Southern comes aboard with "A Review of Some Taxing Programs". A number of tax 'planners' and 'calculators' are brought to light. Derek plans further adventures with several more tax programs in a future issue.

Max Nareff reports on his experiences combining a 'Solid State Disk' with 'Pascal'. ("Oh the times they are a' changin'.") Max also reports that price reductions have just gone into effect; the Dual Disk Model (294k) for $695 and the Single Disk (147k) for $395.

No issue would be complete without Woody Liswood's contributions, and this month is no different. There is food for thought about "DB Master Utility Pak #2", and an in-depth look at the "Diablo 630 Daisy Wheel Printer".

Jim Linhart graphically ponders what will be revealed mid-month by Apple Computer. What is the "][-E", and what of "LISA"? Jim will examine Apple /// printing with his Epson printer next month.

Don Scellato is reportedly putting the details together for an 'extensive' programming contest.

And speaking of contests, I'll announce the winner of the 'cover/masthead' contest next month.

B*A*S*I*C

(c) by Joyce Conklin, 1982

PEEK and POKE..... hmmmmm -- isn't that what you did with your holiday packages? At least most of the people in my house did! But in this context, PEEK and POKE don't refer to physically investigating something, but rather electronically investigating and/or configuring it.

PEEK is a statement which allows you to "examine" the contents of a location in the memory of your 'Granny Smith'. One use of this would be to determine the location of the cursor on the screen, if you want to print in a particular location relative to a variable-length string which has been input by the user. PEEK (36) will return the horizontal position of the cursor (a value from 1 to 40). PEEK (37) does the same thing for the vertical position of the cursor (a value from 1 to 24).

In the screen pause subroutine previously published in this column (Sept/Oct) the cursor continues to blink between the [and the], waiting for the user to press a key. Suppose that you want to have a screen pause but don't want the flashing cursor, since it might distract the user from reading or studying the material presently on the screen. Then you could use the following code for your subroutine:

```
10000 POKE -16368,0:VTAB 24:HTAB 5: PRINT "<PRESS
 SPACE BAR TO CONTINUE>";
10010 IF PEEK (-16384) <128 THEN 10010
10020 IF PEEK (-16384) = 160 THEN POKE -16368,0:
 RETURN
```

Now, what does all that mean? Location -16368 is called the "keyboard strobe" - it keeps track of the last key pressed. Poking zero into this location starts you out (well, starts the computer out) thinking that nothing has been pressed. Because line 10010 does not contain a GET statement as in the previous screen pause routine, there is no flashing cursor. PEEKing this location for a value greater than 127 indicates that a key has been pressed. IF the ASCII value of the key is 160, the pressed key was the space bar and the user wishes to continue. So line 10020 once again resets the keyboard strobe to zero, waiting for the next action from the user, and returns to the main body of the program.

Another use of PEEK and POKE is to discover and/or set the edges of the "window". You are familiar with one kind of window if you have done anything with the Applesoft Tutorial book that came with your computer. Try some of the exercises in low-resolution graphics on pages 29-34. The text window is the four lines at the bottom of the screen where you see the commands printed out as you type them. In this case, the top of the window is at 20, which will actually display three lines of text at the bottom of the screen plus a blank line waiting for the next print line. If you wanted to have the scrolling text be the main portion of your screen, but wanted titles or some such to remain at the top, you would issue the following command: POKE 34,X. Try this example:

```
10 VTAB 4: PRINT "THIS IS LINE #4"
20 POKE 34,5
30 HTAB 10
40 PRINT "100":GOTO 40
```

Why POKE 5 into location 34; why not POKE 4? Location 34 holds the number of the top line to be used for text and therefore the top line which will be printed as you scroll through the column of 100's generated in line 40 of the program. You wanted the title "This is line #4" to remain showing, and sure enough, the 100's printed right up to but did not wipe out the title. To verify what is happening, try the example without line 20. (Actually, it would be better to change line 20 to POKE 34,0; this resets the computer to its default condition of full text screen. If you just deleted line 20 from the program, location 34 would still contain the value of 5.)

On the other hand, if you want your "title" to be at the bottom of the screen, you would POKE 35,X, where X is the line number one above where you want your title to appear. Then the text will scroll upward from this position. The limits for both of these parameters are 0 to 24. POKE 34,0 will give you the default condition of a full text screen, whereas POKE 34,24 will result in only one line being printed to the screen.

You can also protect a portion of the screen from left to right, but here you have to do two commands, setting both the width of the text window and its left-hand margin. It is important that you set the width first and then the left margin; to do it in the reverse order causes all sorts of problems, not always predictable. If you have a scratch disk in your drive, or are just working in BASIC without DOS, try it out. The commands are POKE 33,X to set the width of your text window (0-40) and POKE 32,X to set the left margin of the text window (0-39). If you combine all of these commands, you can have a scrolling text window in the middle of a field which is not moving at all.

There are some other interesting POKE and PEEK locations listed in my source but unfortunately not all of them are accesible from BASIC. I tried to change the prompt character (]) by a POKE 51, X where X was any number except 221. No go! I found out what the ASCII number for the prompt character was by typing X = PEEK(51); PRINT X. (Incidentally, these commands can be used in the immediate mode as well as from within a program.) I could have found out the ASCII code for the prompt character another way; it's listed in Table 7, page 15, of the Apple][Reference Manual. If you are anything like me, I started out reading all the manuals which came with my "Winesap" but bogged down when it came to the DOS manual and boggled completely after page 11 of the Reference manual! After all, what same person writes numbers like $C054 or worse yet, $5FFF?!?!? But now that I've been around the computer world for a while, hexidecimal notation doesn't seem as intimidating, and also, some of the other things in the book look a little bit familiar. So dive in... you might learn something.

The other thing that I would like to be able to do is to change the cursor from a flashing one to a steady one... perhaps the underline character used in some word processors. It seems that this isn't possible in BASIC, according to my sources. Anyone out there know of a way? Next time we'll deal with CALLs, and not the kind you make through Ma Bell either.

CIDER PRESS REVIEWS

DB MASTER UTILITY PAK #2

Review (c) copyright 1982 by Woody Liswood

Published by:

STONEWARE INC.
50 Belvedere St.
San Rafael, CA 94901
(415) 454 - 6500

As the name implies, this the the second in a series of utility pak's designed to work with and enhance the capabilities of DB MASTER.

NOTE

The documentation contains the following: "Utility pak #2 is compatible with DB MASTER Revision 3.01 or higher, and with the special edition for hard disk. A minimum of 2 disk drives is required with the floppy disk versions of DB MASTER. With the hard disk version, only a single floppy disk drive is required."

UTILITY PAK #2 adds the following capabilities to the DB MASTER system.

Global Editor
Label Printer
Transaction File Merge
Reblock for extra space
Change read protected fields
Print data entry forms

Global Editor

The global editor allows you to change records based on various criteria which you might specify. It can work on only one or all of the records in your file. It can delete records with or without a confirmation. You can replace a field with a constant or a computed value based on other fields, you can compute days between two date fields and place that data into any numeric field. (That means if you need to know days between dates, you should create that as a numeric field when you design you data design, then use UTILITY PAK #2 to put the number into that field prior, probably, to printing your reports.)

The global editor will do up to 5 edits in one pass through the data.

STONEWARE has a general note for the global editor which is good to remember whenever you work with DB MASTER. Their note is:

WARNING: This option is designed to make major changes in your file. Work with a backup copy of your file in case you make a mistake!

I can not recommend that strongly enough. I have used DB MASTER since it first came out. It will, from time to time, completely garbage a disk. STONEWARE will always blame that on the disk drive. My response is a bronx cheer. Their complicated protection scheme just doesn't always work, in my opinion. Since I never, never, use the only copy of my data disks when working with DB MASTER, I can always recover. I will say, though, that I have never had problems during data entry or retrieve. My problems normally come when I am restructuring a schema or some wild thing like that.

The global editor is menu drive and works through a series of prompts. They make sense. However, I ran across one scary problem. When you are going to change data based on the contents of another field it appears that you are going to blow the entire thing because the prompt to ask you for the values to base your changes on comes after you are queried as to what changes you want to make. The first time I did this I said to myself that they really couldn't have made that big a error in their documentation, could have they? Well, they didn't, but I warn you ahead of time.

There are 3 basic edit types.

You can Replace a value with some other value.

You can replace a value with a computed value. You actually can add, subtract, multiply or divide any two fields (including the field you want to change) and put that into what is called the "Destination field".

You can compute days between dates. Your data can be in the MM/DD/YY or YY/MM/DD or DD/MM/YY formats.

I use this field to update a HRIS (Human Resource Information System) salary schedules. I maintain a range of salaries by using a salary grade. Then, each year, when the salary ranges change, I use the global editor to go into the file and, for example, put a new minimum of 1500 when ever the salary grade equals 10. It takes a while to update an entire structure, but this ain't a mainframe and the cost, really, is only my time.

LABEL PRINTER

STONEWARE tells me that one of the most popular uses of DB MASTER is to maintain mailing lists. The label printer will now print labels from 1 to 5 across. It compress blank lines and spaces for your addresses. It will also convert upper case to mixed upper and lower case so that your labels don't look so much like they were done with an upper case only Apple. Also, the label printer will let you have from 1 to 99 copies of a label in one run.

I really can't say much else about this option. I tried it and it works. Probably the best feature is a text patter which you can use to align your labels on the printer before you start your production run. I used to keep the first 10 labels in any series as aaaaa or aaaaa1, aaaaa2, etc... so that I could align the printer before I started printing. Now, I have deleted those from the file because they are not needed.

TRANSACTION FILE MERGE

This edits data in one file based on information stored in a different file. It uses two files with the same format and file name and can also handle up to five edits in one pass through the file.

From a practical sense, this really gives you batch processing and editing. Again, let me give you a personnel related example. You can enter your salary changes into a small data base which only contains the salary data and benefit data changes for the month. That way you are not working with your master file all of the time. After you have verified that the change data is correct, you can use the transaction file merge to add that data to the master file. Works like a charm.

REBLOCK FOR EXTRA SPACE

This is an option which you should use when you need to add a lot of data to a large file. That means your file is large enough that it might split to two disks with just a few more additions to the records.

I had no use for this option, so I was unable to try it to see what really happens. I did try it with a regular file and could not tell any difference.

CHANGE READ PROTECTED FIELDS

This utility changes "read only" fields to visible fields and changes visible fields to "read only" fields. If you are involved with multiple passwords and their problems, then this might be a useful utility for you. It works. Can't think of anything else to say about it.

PRINTING DATA ENTRY FORMS

This utility takes your screen image and prints it as a 40 or 80 column form which you can then use for data input. For example, you could hand the blank form to someone to fill in then use that form as your data entry document.

WARNING THIS PART OF THE PROGRAM HAS A MAJOR BUG. IT DOES NOT WORK. THE PAGE SPACING FORM FEEDS AT VARIOUS NON END OF PAGE PLACES. YOU WILL HAVE TO CUT AND PASTE TO GET THE CORRECT FORM AFTER IT HAS BEEN PRINTED.

When I mentioned this to STONEWARE, they said they would fix it in future editions, but that hardly anyone uses this feature so that they did not feel it was critical to fix right away.

I have (to give) them an "expletive deleted" for I think that this is one of the more useful features of the utility pak. But what do I know?

And that is it.

SUMMARY

A useful addition to the DB MASTER system. If you use DB MASTER to any great extent, you will need this addition.

DIABLO 630
DAISY WHEEL PRINTER

Review (c) copyright by Woody Liswood 1982

Manufactured by:

Diablo Systems Incorporated
24500 Industrial Boulevard
Hayward, CA 94545

A XEROX company

Well, you say: "How do you write a review about a printer?" That's a good question. I have had a number of printers in my life as an computer user/owner. I typically, and usually quite quickly, develop a love-hate relationship with the damn

things. Then, after I finally comprehend the quirks, and other mysterious happenings of the machine, my relationship settles down to one of wondering when will the ribbon go out and other mundane problems like that.

Just to gain some credibility for the review, I have, currently, a EPSON MX-80, a STROBE 100 Digital Plotter, a BROTHER HR-1, a QUME SPRINT 9, and now the DIABLO 630. The last three are all daisy wheel printers.

So, here goes. Of all three of the Dairy Wheels, the DIABLO is far and away the largest and heaviest of the machines. It appeared, one day in our Oakland office delivered by a man with a dolly. Then and there I should have known not to pick up the thing and take it home, but I did. The package it was in just barely made it into the Porsche. I killed myself hauling it up two sets of stairs in my typically multilevel San Francisco home. When I unpacked it I found that it was larger than my plexiglass print stand I was using for the Brother. Oh well, I thought, I will try to put it on the stand anyway. It fit with the four rubber feet on the printer just, and I mean JUST, making it on the four corners of the stand. Now there is a slight downward bow on the top of the stand and a slight upward bow on the bottom edge. When it goes I will see how good the warranty really is on the stand.

Why make a big thing out of size? Well, if you are going to purchase a printer, you should make certain you have room for it.

FEATURES

The DIABLO 630 has, probably, all the features you will want or need in a letter quality printer. It has the ability to use metal or plastic print wheels. It prints up to 40 CPS. The printwheels are available with 88, 92, or 96 characters per wheel. You can select, by switches, APL, FRENCH, GERMAN, SCANDINAVIAN, NORSK and ENGLISH. Needless to say, I only tested the 96 character English wheel.

The machine also supports 10, 12 or 15 pitch spacing or it supports proportional spacing. Now, here is the first interesting problem in using the printer. Although you can switch select the 10, 12 or 15 pitch wheel, the printer does not recognize that you have anything other than the 10 pitch wheel unless you send an ESC S to it. The ESC S tells the printer to go ahead and use what ever spacing is set by the switches. On the other hand, since the machine supports proportional spacing, it means that the carriage can move in very small increments across the paper. Using a program such as Spellbinder, which supports proportional spacing, you get type set pages automatically and you don't even have to have a proportional print wheel. The print head is capable of moving in 1/120 inch movements.

With WordStar, the DIABLO 630 can make use of all the special features normally found in WordStar.

PAPER SIZE

The printer works with all paper sizes. I use it with a bi-directional paper tractor which uses any of the standard! sized printer papers.

ON BOARD MEMORY

There is a 768 character print memory as standard. As an option, my DIABLO also has a 2688 character print memory and nonvolatile operating parameter memory which is battery powered. My version has the nonvolatile memory. And, boy, that caused a few headaches. First, there is no way to tell when you have that option. Second, other than mentioning that option in the manual, it is ignored. That means there are no instructions on what it does, how it works, and what to do if it is not working.

When I first started using the printer I would have all sorts of strange things happen. One night it refused to print. It just sat in column one and beat column one space one to death. Another night it moved back and forth across the paper but refused to put the ribbon up. Another night it would print in column one, do a line feed, print in column one in line two, etc, etc, etc. Well, let me tell you that was driving me crazy. I finally located a DIABLO repairperson on the phone. "Well", he says, "you must have the new undocumented nonvolatile memory!" "Yep" says I, "so now what do I do?"

The solution was easy. Whenever the printer starts acting crazy, just send it an ESC CONTROL Z I.

Guess what, it works. Whenever I do something stupid like forget to set the baud rate on my portable to 1200, which is what I am operating the DIABLO at, I just boot into CP/M, do a CONTROL P to turn on the printer, hit the ESC CONTROL Z I from the keyboard, and there I am in control of the damn machine again. I certainly would be nice to have those sort of instructions in the manual.

I must comment, though, that DIABLO found the technician for me rather quickly and my call was returned within a few minutes. I am still waiting for calls from some companies.

INTERFACE

On thing you must decide is what type of interface you wish. My machine has a serial port so I went with a serial interface. Now, I don't know much about those things so I asked Mike Nadelman from Apex Business Services what he recommend. I wound up with a California Computer Systems 7710 which works very, very nice. However, Mike came to the house because he said that the printer needed some special jumpers to work with the system the way I wanted it configured.

The other joy of starting up was RS232C interfacing. By the time I was done, I also needed a special cable made up to work with the CCS and the DIABLO.

JUST A WORD OF WARNING. This is not a simple printer. When you buy it make sure that you are going to get the support you need to get it running. The documentation that comes with the DIABLO 630 does mention those jumpers and other goodies but states that these sort of things are best done at the factory by a trained service technician. If I had not had experienced help, I probably would have sent the thing back as no good. So, when you leave the world of parallel interfacing and get to the world of these heavy-weight production machines, make certain you know what you are getting into.

FRONT PANEL

The front panel has 7 touch type membrane switches and six idiot lights. I will start with the lights. From left to right they are:

power
check/pause
overflow
ribbon paper
cover.

The power is obvious.

Check/pause says this in the manual "indicates that a print operation has been called for while the printer is in a "check" condition. A check condition occurs when a print wheel or carriage movement command has been received but cannot be successfully completed due to a malfunction. This condition disables the Model 630 until a restore sequence clears the check condition." That means if this light comes on you have a problem.

Parity light goes on when the printer detects a parity error. To me, this means that you probably have a noisy line or some such thing. There are a number of dip switches inside the machine. This light only works if it is switched on inside.

Overflow says that the machine is receiving more information, faster, than it can get it printed. It normally means that you have a protocol problem of some sort. The DIABLO 630 supports both XON/XOFF and as well as ETX/ACK. Although the documentation indicates that ETX/ACK is recognized at all times, I could only configure WordStar using XON/XOFF. WordStar will lead you astray by saying that with a Diablo 630 you should use ETC/ACK. Took me over three hours of trying every possible combination under the sun to get WordStar to use all of the functions of the DIABLO. Then I found that I could have done it in less than a minute. Oh Well, hope you learn from my mistakes.

Ribbon/paper says that you are out of either.

Cover says that the cover is off. The printer has stopped. One of the first things I did was clamp this switch permanently on so that I could remove the cover when the printer was working and not cause everything to stop. Actually what I did was not remove the packing that held that switch down for delivery.

The membrane switches are:

reset
scroll
line feed
form feed
here is
pause
break

Reset puts everything back to order following any error condition.

Scroll move the paper up a few spaces so you can read what is behind the printhead. When you release the switch the paper returns to the original position.

Line feed moves the paper a single or double line depending on the internal switch settings.

Form Feed issues a form feed to move to the next page.

Here is, and I quote; "cause a special message of up to 31 character to be transmitted over the communications link when operating in remote ASCII mode with the fully featured HPRO5 option installed." Got that?

Pause stops everything. You resume by pressing reset.

Break causes a break space to be transmitted over the communications like when operating in remote mode.

INTERNAL SWITCHES

There are a number of dip switches available for use just under the cover. From left to right, the first thing you find are two rotary dials which allow you to set tie particular type of print wheel you are using and the pitch you wish to use. It dials either 10, 12, or 15 pitch. In addition, the dials allow you to get a self test mode.

Next are two banks of DIP switches. Here you can control single or double line feeds, auto line feeds, covert all lowercase to uppercase, allow keyboard9oard entry of your "here is" message, turn on half or full duplex, enable or disable parity checking, set the baud rates, go to odd or even parity and turn on or off the paper sensing switch.

You don't need the manual handy for these for the possible switch positions are indicated on a plastic tag next to the switches.

PRINTING FEATURES

You can have/use/do the following:

dot graphics
two ribbon colors
select alternate wheel sizes
proportional space
underscore (character or automatic)
Bold print
Shadow print
Bold and Shadow combination
Backspace
1/2 line space up (Superscript)
1/2 mine space down (Subscript)
Auto center
Auto Justify
Bidirectional print
Change horizontal motion
Change Vertical Motion

PRODUCTION

To me, the real test for this printer comes from continued use over time. Let me tell you of my test. I am writing a book. At this point in time the manuscript comes to over 200 pages. The files are all WordStar files and primary storage is on a XEBEC hard disk. I, once every two weeks, print two copies of the latest version of the manuscript. One to carry, and one at home for other ideas. Then, I had to send a fresh copy of the latest to a publisher.

Just think how long your printer would take to do that job. That's 400 pages, hopefully, non stop. So here's some general comments. I couldn't do this with the QUME for two reasons. First, the QUME does not have a continuous strip nylon ribbon so that I would have to stay with it to change ribbons when the film was used up. This print job takes about 3 hours. Second, I have had trouble with the QUME with its tractor skipping formfeeds upon occasion. I can't afford to watch a printer waiting for a problem.

With the DIABLO 630, I just put in a nylon ribbon. Now I can print for as long as I want. I have yet to have problems with the bi-directional tractor I purchased for the DIABLO. Then I use the MailMerge feature of WordStar to print my files all in order. Usually I start it up at about 1:00 A.M, close the office doors, and go to bed. (I have an office in my home.) When I get up, the printing is done. I have been doing this for over two months now and have yet to have a mishap. That type of printing is as much production as I can think of for a printer. (My EPSON could have done it but I still would probably be waiting for my output.)

PROBLEMS

The only problems I had were with the documentation. Since they assume that the machine is going to be used in a production rather than a home/personal/private computer environment, the documentation does not really give you all the specific instructions and installation diagrams that you will need. XEROX assumes that a service man will install your machine.

If you buy this machine, take your computer to the store and make certain that the cabling and interfaces all work before you take it home.

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When I purchased the bi-directional tractor feed, I had to take off the top sound cover. The tractor did not come with its own special sound cover. That is a special part to order separately. That is not in the documentation.

SUMMARY

I have use the machine extensively for about three months now. Have had no problems what-so-ever. It has taken the place of the QUME for my work. Anything that can handle the volumes of paper that I have been generating for the book, can probably do your type of work.

If you in the market for a letter quality, daisy wheel printer, you should take a close look at this one.

A REVIEW OF SOME TAXING PROGRAMS
by Derek Southern

The bad news- it's too late for 1982 Tax Planning now, unless you are waiting to open an IRA!

The good news - there's plenty more years to practice (the IRS is here to stay), so why not use your Apple to help solve tax problems? The objective of this review is to share my comments on some of the popular tax programs we all see advertized. I have found that they are NOT all equal.

People who write tax articles always have disclaimers ... I am no exception! This article seeks merely to comment upon several software packages rather than to give tax advice. Neither the Publisher nor the Author is rendering any service other than providing this commentary. You will also find similar disclaimers on all the tax packages reviewed.

A MAJOR REQUIREMENT...CAUTION

When you use a tax program
YOU MUST FULLY UNDERSTAND THE TAX LAWS.

You will also need to organize your data; some programs require detail, others want totals only. Some preparation will always be necessary.

Introduction

There are two different types of "Tax Programs"; namely PLANNERS & CALCULATORS. If you want to review the effect of different tax planning strategies, a PLANNER is for you. If you need to know exactly how much your refund is, or otherwise, then a CALCULATOR is the answer.

The IRS normally issues the official new tax forms toward the end of the calendar year, so all companies in the tax software business have a very short period in which to update their programs before the new season is upon them. This has made it impossible to review any programs that specifically apply to the 1982 tax returns while meeting the print deadline for the January issue of Cider Press (and any later issue will not be timely). Fortunately the program changes are mostly mandated by changes in regulations and form layout, not by changes in logic. So, comments based on 1981 versions should be a good guide to the 1982 versions. Any changes I am aware of will be noted.

All the programs reviewed require a similarly equipped Apple II or II Plus: 1 or 2 disc drives & 48K. A printer is obligatory if you want a permanent copy for evidence at a later date. An Apple /// in emulation mode is OK.

TAX PLANNERS.

Personal Tax Plan from Aardvark Software Inc.
783 North Water Street
Milwaukee WI 53202

Personal Tax Planner is written in Pascal, but you do not need any knowledge of the language to use the program. A number of tax exercises can be stored either on the program disc or on the provided data disc. Both discs can be copied using COPYA (on DOS 3.3 master) which avoids the need for the (expensive) Pascal Language System. The data entries are well error trapped, and editing is really easy.

After booting the program disc you enter a menu screen from which your choices are:

new:	enter new tax-payer data
old:	load an existing file from the data disc
same:	return to the data menu and continue working with the tax-payer data that is already in memory
directory:	review the names of files on the data disc, or remove unwanted files.

You next select Alternatives or Projections, and specify the number of each that are required, to a maximum of five.

The brief instruction manual is almost redundant because each data entry is on a separate 'page' and is supported by its individual 'help page' reached with "/" or "?". If you don't read the manual you only discover this by accident! The 'help' is either a listing of possible choices, or a reference to an official IRS publication so that you can enter data which conforms to the Tax Regulations.

An Input Reference Guide lists the 65 data entries which can be S)elected. Using S) you can move around these entries at will. All the edit commands are always on screen in a special prompt box. Very friendly.

you MUST READ THE PAGE TITLES
and UNDERSTAND THEIR SIGNIFICANCE

If you plunge ahead recklessly the resultant analysis will be pure science fiction, (DON'T SAY YOU WEREN'T WARNED) and your tax planning will not be optimized!

Within these constraints this program is a joy to use. With projections, for example, you can set P)% for compounded % growth rates (estimates of future salary increases for instance), or X)% for simple interest rates, or I) for fixed sum increases. The effect of different investment strategies can be explored quickly, and the results of each alternative can be printed out in a user specified sequence. The screen view option is limited to 2 evaluations unless you have an 80 column board installed in Slot #3.

Changes in tax laws affecting future years are incorporated as far as they were known at the time the program was written, but major changes such as TEFRA (1982) make it vital to purchase the annual updates. Projections for any five year period can be made, you simply specify the first (base) year. Analyses for years beyond 1984 assume the 1984 laws and tax-rates continue unchanged.

Financial planners will find this a very useful program for evaluating clients' future tax liabilities under a wide range of alternatives. Anyone who takes personal tax-planning seriously will find this a worthwhile investment because the answers to "what if?" questions are so easily and quickly obtained.

Calculation times were respectably fast: 30 seconds for two alternatives and 40 seconds for five.

TAX CALCULATING PROGRAMS

Companies advertising in late November were contacted, but none had the 1982 Tax Year versions ready. Copies of 1981 programs were offered (and accepted) for review, but not all reached me in time. Datamost's Federal Tax Beater, (the name is changing for the 1982 season) and Microlab's Tax Manager were fully reviewed, while Howardsoft's Tax Preparer was quickly explored just before the dead-line. A five-diskette, comprehensive professional package called Micro-Tax, from Microcomputer Taxsystems came late and since it requires a hard disc with CP/M (I have neither but will tap our editor for a lesson!) will have to wait until next issue, along with any other late-comers such as E-Z Tax. Actually this last program is a new one for 1982 tax returns; it was recently advertised and should be available in mid-December.

Federal Tax Beater - 1981
Will be distibuted in 1983 by
Jack Lennard
Lennard Business Services, 7 Moonrise Ct,
Newport Beach CA 92660

Jack Lennard, the author, told me that he will be distributing the 1982 program himself. Moreover the name will be changed to Tax Break-Annual. There will also be a Tax Break-Planner available which will include the latest revisions of tax law and will be a real competitor for Aardvark's program. A new upgrade policy will be promoted, watch for details in the press.

The 1981 version was written for the majority of 'normal' tax-payers, which means that the number of schedules and forms it handles is limited. The input stage allows for lump-sum distribution data, capital gain/loss data and information for income averaging alternatives to be evaluated. The output is limited to Form 1040 and Schedule A, plus a tax alternative evaluation summary and an evaluation of the Schedule A input. This will be enough for most 'normal' tax-payers because the program is claimed to perform over 120 iterations of posible tax returns to determine the minimum bottom line tax. All in 90 seconds. The time was accurate, and the test data for a hypothetical tax-payer certainly equalled the best tax refund I could calculate by hand, but many times faster. The Schedule A evaluation warned that certain deductions were above the normal range for a tax-payer in that income bracket. This warning enables you to confirm that your entries are not in error and should help avoid audits. In the test case, the interest paid on a California house purchased in the past few years was enough to trigger this comment! But if your deduction is properly supported (as this taxpayer's was) then the full claim should be made.

The program has nice touches, such as an optional printer check before you run the full output. Error checking and editing is quite friendly, the user must accept each screen of data as correct before being allowed to move on. Remember to save the data in a file once it is all entered, (option 3 of the start menu).

the Tax Manager by Taso (1981 tax returns)
From Micro Lab, 2310 Skokie Valley Road
Highland Park, IL 60035

The program consists of three modules which almost fill both sides of a disc. You are prompted to turn the disc as required, data is saved on a normally INIT'd disc which remains in the second disc drive. As the programs offer more forms and schedules the need for a second drive becomes accute, both this and Tax Preparer would be less than sociable with a single drive.
Booting leads to a main menu with 5 options:

tax guide
tax check-list
tax preparation
change disc/printer set-up
end

First check your configuration, it will be saved and will only need changing if your system changes.

The "tax guide" is a useful feature if you are unsure about which forms and schedules should be completed (but should you then be using the program?). A series of Y/N answers results in a recommended list of schedules and forms applicable to your case; write this down as the list is not stored for reference.

The "tax check-list" is a data-base of key words which is supposed to help the tax payer answer certain questions about deductability of items. It can be a problem to guess the right key-word so my personal preference is to research the IRS Publication 17 (FREE), plus one or other of the commercial guides which emphasise just what is, or is not, a legal deduction.

Finally we reach "tax preparation". The manual reminds you to collect all the needed records, then, start entering the data. Individual forms may be chosen one at a time, or in a sequence to be followed automatically.

Entries are either "simple" or "compound". A compound entry opens out a simple line entry into several pages of supporting information. The data is summed, or otherwise manipulated, and the answer is entered back into the appropriate line. This is a useful feature as it provides a detailed listing and reduces the chance of arithmetical error. Data editing is easy via seven command keys, but the instructions for these lurk around Page 6 of the feature section, an area usually devoted to advertising hype ... so do read the whole manual. It is actually very brief, there is no index but a table of contents is detailed enough for most purposes.

As data is added page by page the calculation progresses, but is NOT saved to disc. Use the S)ave option from time-to time!

Another useful feature is the ability to store a sequence of forms for automatic display. This saves time by avoiding frequent returns to the main menu. You can also select forms (C,D,E,F,4797 etc) by choosing the relevant line from Form 1040, but you may then repeat a form later when it arrives in the auto-sequence, but that is easily corrected.

Since the data on each page is manipulated as you progess down the form, the tax consequences are immediately visible when you reach the bottom line. The forms can be printed, but the user must specify which forms are required, it would be great if a prompt appeared reminding you that your initial questionnaire indicated the need for other forms. Better yet, why not have the needed forms presented in a logical sequence for our data entry? This linkage would be useful in the case where a tax preparer interviews a client and the responses can be saved, it might provide the preparer with a good defense when the IRS decides that the preparer is negligent and assesses a stiff penalty. Did you know the IRS has increased the preparer's penalties this year?

The printed copy is very clear, but each compound entry occupies an individual page so the final bundle can be quite thick, but you will have an exceedingly well documented return. And that is probably a relief in later years if you are invited to attend an audit!

Tax Preparer by Howardsoft
from Howard Software Services
8008 Girard Ave., Suite 310
La Jolla CA 92037

"Make it easy on yourself", the instruction manual says. "In order to avoid hours of later frustration, please take the time to read the entire manual". This advice is on Page 1-1, and it is prophetic!

This is a comprehensive package which allows a tax-payer to prepare, edit and print a wide selection of the IRS tax forms and schedules. It is, however, a very slow and cumbersome process. You should note the 'road map' in Appendix B, if you choose the forms out of sequence it will cost you in time and nervous energy. A data-disc is essential, so the manufacturer provides one --- but you must format it, and if you forget you will lose your data!

The main menu has 24 choices, and you must select each form, complete it, return, select the next one, and so on. Data entry is idiot proof, but too much so! the letter 'T' must be typed to enter any data, after the 'beep' you can go ahead. Once entered, the data cannot be edited without scrolling to the end of the form, answering N to the Y/N question about accepting the data, then rescrolling to your previous entry. This is not friendly, nor is it fast.

You will be entertained by the frequent rests that the program takes, "just refreshing myself", you are informed. Each pause seemed to be for 45-60 seconds, and even occured during printing!

The test data was calculated correctly, but the program did not help me select the optimum tax payment. I had to compare two different runs, one using tax tables, the other Schedule G. This requires rescrolling down the whole 1040 page and changing the tax calculation choice and then repeating the calculation. S-L-O-W-W.

CONCLUSIONS

There was only one game in town for 1981 tax-planning, the Aardvark Personal Tax Plan. The

package includes an opinion from the respected accounting firm Touche Ross & Co, that the program does what it claims to. But they put the responsibility onto the user for understanding Tax Law and inputing good data. I liked this program, but you need to know how to obtain the aggregated data before it will be useful. It worked quickly and editing was easy, viva Pascal!

The Tax-Beater program will be a good buy for many of us ordinary tax-payers, and the new version, which will include a taxplanner, will be potent competition for Aardvark if the programming is of the same high standard as Tax-Beater.

For those with complex tax problems, such as tax preparers, the Tax Manager would be a good choice. The power to set up the auto-sequence will be a nice time-saver, and I liked the way it was possible to move from one form to another so easily.

My reaction to Howardsoft's Tax Preparer is so unfavorable that I see no use for it when other programs are so much faster and more friendly. I will check the 1982 Tax Year version to see if there are any significant changes and report back if there is reason.

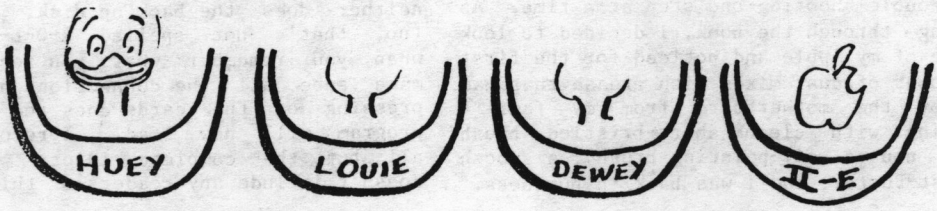
Don't forget that the cost of a program used for tax preparation is a deduction, you might also include your home accounting package if you flag tax items. A final comment: keep good records whatever else you do. They can save time and money at a later date.

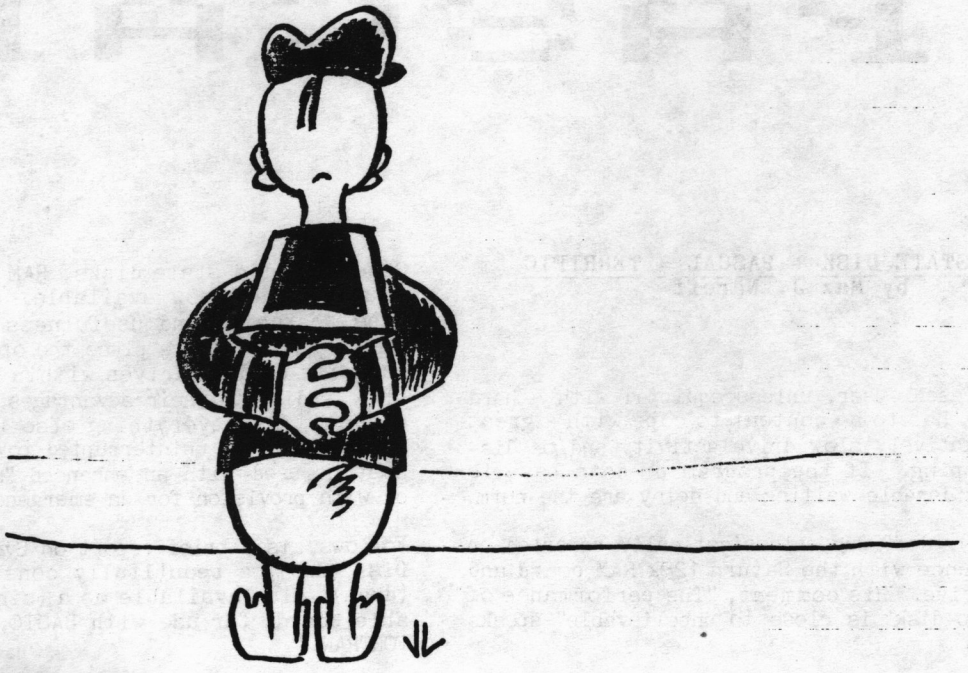
BOOK

A Book Review by Joyce Conklin
(c) 1982

HOW TO REPAIR THE APPLE COMPUTER
(c) 1982 by DataLine
2961 S. Las Palmas, Mesa, AZ 85202
List Price: $39.95

This small manual (listed as Vol. 1 because there are others in the planning stage) is printed in eye-ease (and xerographic-defeating) blue. When you see the size and compare it to the price, you might think it's another rip-off such as was more common in the earlier days of microcomputers as everyone tried to get on the bandwagon. But NOT SO... as is pointed out, if you have a reasonable degree of mechanical ability, one fix will save you the price of a service call and then some. There is a disclaimer of responsibility on the part of the author -- all boo-boo's are your fault. But if you were really worried about that, you wouldn't try to fiddle with the computer anyway.





With that aside, you start reading the book and find that it really has the "ordinary" user in mind, not the electronic hobbyist. There is a diagram of an IC chip with arrows to show how to find the reference point (usually called Pin 1); this is necessary to know if you are going to remove and replace chips. The pins are all evenly spaced so it is possible to get the chip in backwards with unpredictable results. The description of the various parts is in layman's language and the directions are very nicely given in a step-wise manner so that you can follow them.

It's a good idea to read through the entire book first (after all, how long can it take to read 56 pages?) and then do what is advised. I discovered that the way I installed my TKC keypad was a no-no! Guess I was just lucky. You are advised never to do repairs on the carpet, even if that is a nice soft place and gives a large area to place the unattached parts. The carpet can hold static electricity which is anathema to IC's. Like I say, I was lucky.

The directions include "GOTO" statements which allow for variations in the type of computer which you may have - this book will work for Apple][, as well as Apple][+ in it's many revisions. The chapters include Trobule-shooting Overview, Problems with the Motherboard, Problems with the Power supply, Problems with the Keyboard, and Final Notes. In each case you are led through the process of trouble-shooting one step at a time. As I was reading through the book, I decided to look at the inside of my Apple and noticed for the first time the amount of dust mixed with grease that had accumulated on the motherboard from my fan. A careful dusting with clean short-bristled brush (actually an unused oil-painting brush), a swoosh with the Dust-Buster, and I was back in business.

Who knows when I would have noticed this problem, if I had not had the cover off while looking at each of the parts mentioned. The trouble-shooting chart looks like the ones you picked up to repair your TV tubes (you don't remember tubes? my oh my, are you young!) and shows which chips may be at fault for different problems. This is after you have checked out other potential problems such as bent pins (you shouldn't have any if you haven't been fooling around with the chips) or a board in the wrong slot (it's really fun trying to PR#6 when your controller card is in slot #7!). Listed in the appendix are some mail-order electronic supply houses, so if you don't have an electronic shop in your town, you can still obtain the supplies.

If you aren't planning any repairs at the moment but just want to add on some of the many gadgets which are supplied for the Apple, this book is worth it in teaching you EXACTLY how to take the case apart (incidentally, the author claimed never to have run into ANY problems with the computer which were caused by the case!) and put it back together again, without removing vital parts - the screws that hold the motherboard in place, for example! How are you going to know not to unscrew those four at the back of the case bottom? They look like all the rest from the outside.

All in all, this is a very easy-to-read-and-follow book which may come in handy, and when it does, you will bless the day you had the foresight to invest in this rather inexpensive insurance policy. It's a real shock when you boot your favorite applications program and it doesn't work, and neither does the back up disk. It's a real relief (no, that's not spelled R-O-L---- in this case) when you remember what you read and go inside to make sure all the connections are tight; a little pressing on the cards does the trick and your 64K program will now load. I recommend this book to all but the complete idiot, which by definition doesn't include any readers of this publication!

PASCAL

SOLID STATE DISK + PASCAL = TERRIFIC

by Max J. Nareff

The APPLE Pascal user, unless equipped with a hard disk drive, has to be content to cope with a great deal of relatively slow drive activity and/or diskette swapping. If the program or data base is large, considerable waiting and delay are the norm.

Recently (1), Jeff Sue enthusiastically reported on his experience with the Saturn 128k RAM board and one disk drive. His comment, "The performance of this 'pseudo-disk' is close to unbelievable" speaks for itself.

Several solid state disks, RAM boards, and drive emulators are now available, and their number, type, capacity and usefulness will continue to grow. Most of these place the operation and memory capacity of disk drives within the APPLE II chassis, lending to their advantages of speed and efficiency. Like everything else in RAM they become dependent on an uninterrupted power supply, so they must be used with an enhanced "saving" discipline, or with provision for an emergency power supply.

Follows, is a brief report on Synetix's Solid State Disk (SSD), a beautifully constructed 294k card (dual); also available as a (single) 147k expandable board, for use with BASIC, Pascal, CP/M and FORTRAN.

Only one single card or two dual cards can be used for Pascal. One card is inserted into slot #5, the second, if available, goes into slot #4. The 294k card uses 250 ma and the SSD I/O drivers occupy about 200 bytes of memory storage.

The SSD is initialized by the provided Boot disk which loads the required routines as well as the key System files. Several additional System files may be added to the Boot disk, up to its capacity. The SSD becomes Vol.4: and the former Vols.4: and 5: become 11: and 12:. If a second card is on-line, in slot 4, it becomes Vol.5:. The brief "init" is followed by a prompt for the date. Next, e(X)ecuting "U" gives the user the option of copying any of the files on Vols.11 and 12 on to the SSD. This is done through a neat menu-select prompt, permitting the inclusion of other System files and ones favorite utilities. Additional options are provided, such as (for) removing files, changing Vol. labels or Vol. sizes and copying files to the disk drives. A diagnostic program is also included. After all of this, over 200 unused blocks may remain for the "work" space since the bare SSD contains 576 blocks at start-up.

The SSD is treated as a mechanical disk drive through APPLE's standard disk operating commands and operates with most Pascal software. It will run with Stellation Two's "The Mill", the Corvus hard disk and beautifully with Volition's Advanced System Editor (ASE) which was reviewed in the last "Cider Press". Due to differing numbers of blocks, file transfers from SSD to disk drive are best accomplished through the F(iler transfer option, rather than the "U" program. "RESET" will not cause loss of data on the SSD card, but the Boot disk must be available in S6, D1 for full recovery.

The manual, covering use with BASIC, Pascal, CP/M and FORTRAN is quite good, (with) only three of its twenty-five pages being required for the Pascal user.

Recently, Neil Lipson (2), approvingly reviewed his experience with the SSD in BASIC in conjunction with Microseeds "FASTLOAD DOS" program.

All in all, the appearance of solid state disks has added an extra dimension on the use of the microcomputer. While the gain in efficiency lies largely in computer-drive interactions, and logically must be assessed as to cost-effectiveness, it does portend more progress and appeal.

The suggested list price is $550 for the single (147k) and $950 for the dual (294k) board. Our friendly club cousin, A.P.P.L.E. has recently sold these at 30% discount to its members, worth joining the club for.

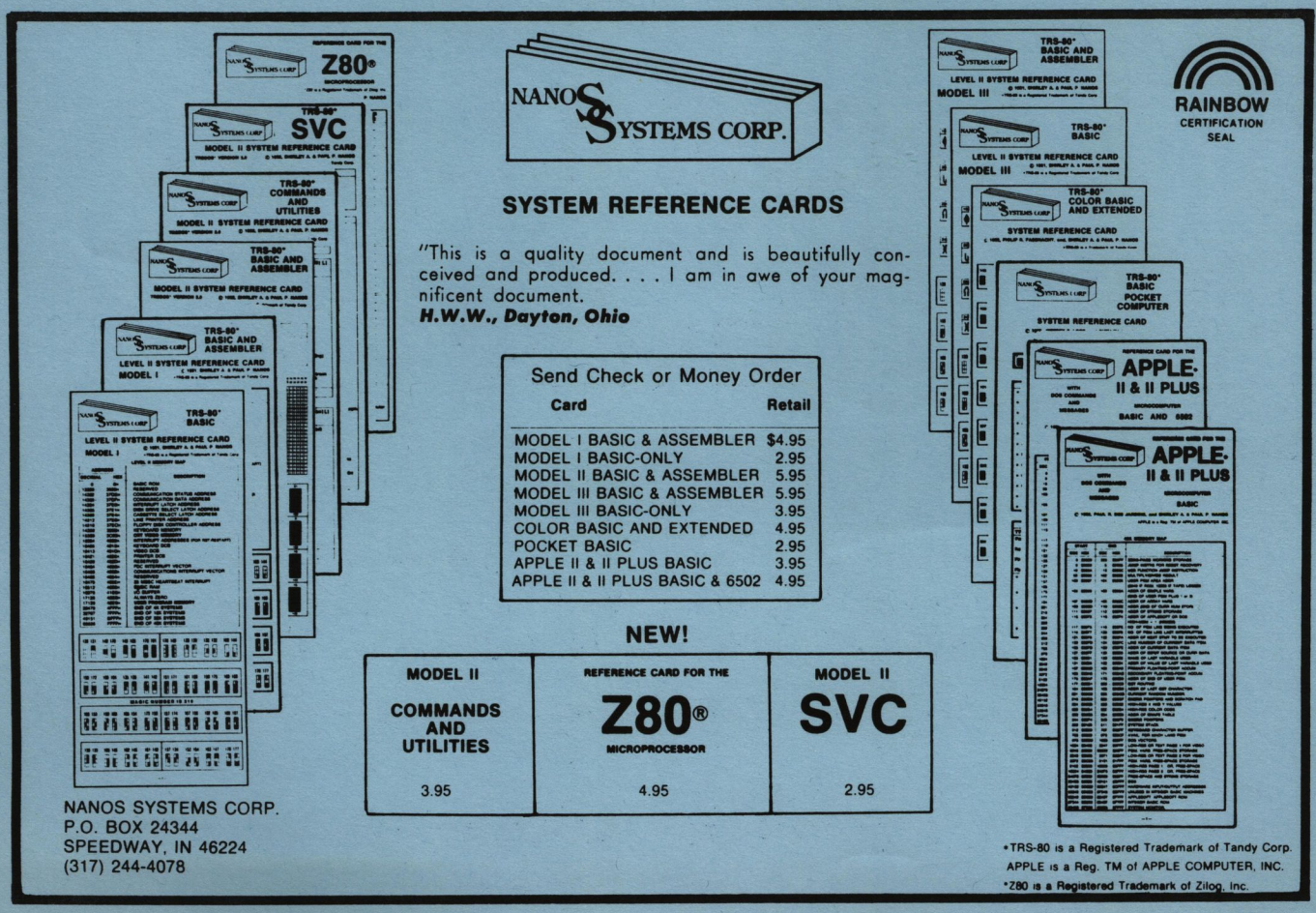
Available from:

Synetix Industries, Inc.
15050 N.E. 95th
Redmond, WA 98052
(206) 885-4215

Computer Data Services
P.O. Box 696
Amherst, NH 03031

(1) The Cider Press - July 1982, Pg. 19
(2) Apple Orchard - Nov.-Dec. 1982, Pg. 18

Submitted by
Max J. Nareff



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